



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant(s): Schaarschmidt

Examiner:

Serial No.: 09/995,119

Group Art Unit:

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For: PROCESS AND DEVICE FOR MANAGING Dated: April 25, 2002  
AUTOMATIC DATA FLOW BETWEEN  
DATA PROCESSING UNITS FOR OPERATIONAL  
ORDER PROCESSING

Assistant Commissioner for Patents  
Washington, D.C. 20231

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**PRELIMINARY AMENDMENT**

Sir:

Please enter the following Preliminary Amendment in the above-identified application.

**IN THE SPECIFICATION:**

Page 1, between lines 9 and 10 (underneath the title), insert - -BACKGROUND  
OF THE INVENTION- -;

Page 2, change lines 16-18 to read as follows:

- -SUMMARY OF THE INVENTION

This task is solved, according to the invention, by a process and a device  
described herein. Preferred embodiments of the invention are described herein.- -;

Page 6, between lines 8 and 9 insert - -BRIEF DESCRIPTION OF THE  
DRAWINGS- -; and

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**CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postpaid in an envelope, addressed to the: Assistant Commissioner for Patents, Washington, D.C. 20231 on April 25, 2002.

  
George M. Kaplan

0995119.050660

between lines 13 and 14, insert - -DESCRIPTION OF THE PREFERRED EMBODIMENTS- -.

IN THE CLAIMS:

Amend Claims 2-13 as follows and add Claims 14-20:

2. Process according to Claim 1, wherein a set of CAD parameters that a CAD system requires to process an order is automatically generated by the central control unit from the customer-specific product parameters previously produced in the data format compatible with the CAD system and forwarded from the central control unit to the CAD system.

3. Process according to Claim 1 wherein the set of variables held ready by the central control unit (1) is determined based on the ERP parameters required by the ERP system (4) and based on the CAD parameters required by the CAD system (3), wherein corresponding and/or dependent ERP parameters and CAD parameters are linked to a variable in the central control unit.

4. Process according to Claim 1, wherein the data flow between the ERP system (4) and the CAD system (3), on the other hand, and between a production control center, on the other hand, is controlled by the central control unit (1), wherein a set of production parameters required by the production control center (5) for processing the order is generated by the central control unit (1) from the data retrieved from the order preparation unit (9), the data prepared by the ERP system and/or the data prepared by the CAD system (3), in a format compatible with the production control center (5), and is forwarded automatically to the production control center (5) by the central control unit.

5. Process according to Claim 3, wherein only the CAD parameters previously generated are stored and/or managed in the central control unit and are re-prepared again at need each time.

6. Device for carrying out the process according to Claim 1 for control of the automatic data flow between data processing units for order processing for a variant product, which device comprises at least one ERP system (4) for resource planning for the order processing, as well as an order preparation unit (9) for preparing the current order, with a central control unit (1) that can be linked with each of the data processing units (3, 4, 9), wherein the central control unit (1) has a memory (10) in which a set of product variables is held ready, wherein the central control unit has data linkage means (11) that links ERP parameters required by the ERP system (4) to process the current order with the set of product variables, wherein the central control unit has control means (13) that assign the values retrieved by the order preparation unit (9) for the product variables to the set of product variable such that a set of specific product parameters is produced and said central control unit also automatically generates a set of ERP parameters in a data format compatible with the ERP system from the set of specific product parameters and forwards the same to the ERP system (4).

7. Device according to Claim 6 wherein the central control unit (1) can be connected with a CAD system (3) wherein the data linkage means (11) links CAD parameters with the set of product variables, which CAD parameters are required by the CAD system for processing the current order, and wherein the control means (13) of the central control unit (1) automatically generates a specific set of CAD parameters in

a data format compatible with the CAD system from the set of specific product parameters previously produced and forwards the same to the CAD system (3).

8. Device according to Claim 7, wherein the data linkage means (11) comprises a logic module (12) that assigns only one common product variable to the corresponding and/or dependent ERP and CAD parameters, stores the current dependency between the ERP and CAD parameters and determines the current ERP or CAD parameters from the corresponding product variables that have been assigned variables, using the related stored dependencies.

9. Device according to Claim 6 wherein the central control unit (1) can be connected with a product control center (5), where a set of production control variables is held ready in the memory (10) and the data linkage means (11) is formed for linkage of the production control variables with the CAD parameters of the CAD system (3) and the ERP parameters of the ERP system (4), wherein the central control unit (1) comprises control means (13) that generates a set of production parameters required by the production control center (5) for processing the order in a format compatible with the production control center (5) from the data received from the ERP system (4) and/or from the data held ready in the CAD system (3), and automatically forwards the same to the production control center.

10. Device according to Claim 6, wherein the order simulation means (14) are provided that generates an order simulation query to the ERP system (4) based on the set of product parameters and forwards supply data, such as delivery date, price, etc. , that the ERP system supplies as a function of the order simulation query, to the order preparation unit.

11. Device according to Claim 10, wherein the online connection and communication are provided between the order simulation means (14) and the order preparation unit (9).

12. Device according to Claim 6, wherein the order preparation unit (9) comprises a visualization unit (15) for display of the variant product that comprises, in turn, a storage unit (16) in which a parameterized model of the variant product is stored, wherein the visualization unit (15) fills the variables of the parameterized model with data retrieved for the variant product, and displays the variant product based on variables determined in this manner.

13. Device according to Claim 6, wherein only the previously-generated CAD parameters, based on which CAD drawing can be generated, are stored in memory (1) of the central control unit (1) instead of a complete CAD drawing.

14. Process according to Claim 2, wherein the set of variables held ready by the central control unit (1) is determined based on the ERP parameters required by the ERP system (4) and based on the CAD parameters required by the CAD system (3), wherein corresponding and/or dependent ERP parameters and CAD parameters are linked to a variable in the central control unit.

15. Process according to Claim 2, wherein the data flow between the ERP system (4) and the CAD system (3), on the other hand, and between a production control center, on the other hand, is controlled by the central control unit (1), wherein a set of production parameters required by the production control center (5) for processing the order is generated by the central control unit (1) from the data retrieved from the order preparation unit (9), the data prepared by the ERP system and/or the

data prepared by the CAD system (3), in a format compatible with the production control center (5), and is forwarded automatically to the production control center (5) by the central control unit.

16. Process according to Claim 3, wherein the data flow between the ERP system (4) and the CAD system (3), on the other hand, and between a production control center, on the other hand, is controlled by the central control unit (1), wherein a set of production parameters required by the production control center (5) for processing the order is generated by the central control unit (1) from the data retrieved from the order preparation unit (9), the data prepared by the ERP system and/or the data prepared by the CAD system (3), in a format compatible with the production control center (5), and is forwarded automatically to the production control center (5) by the central control unit.

17. Process according to Claim 4, wherein only the CAD parameters previously generated are stored and/or managed in the central control unit and are re-prepared again at need each time.

18. Device according to Claim 6 wherein the central control unit (1) can be connected with a product control center (5), where a set of production control variables is held ready in the memory (10) and the data linkage means (11) is formed for linkage of the production control variables with the CAD parameters of the CAD system (3) and the ERP parameters of the ERP system (4), wherein the central control unit (1) comprises control means (13) that generates a set of production parameters required by the production control center (5) for processing the order in a format compatible with the production control center (5) from the data received from the ERP

system (4) and/or from the data held ready in the CAD system (3), and automatically forwards the same to the production control center.

19. Device according to Claim 8, wherein the central control unit (1) can be connected with a product control center (5), where a set of production control variables is held ready in the memory (10) and the data linkage means (11) is formed for linkage of the production control variables with the CAD parameters of the CAD system (3) and the ERP parameters of the ERP system (4), wherein the central control unit (1) comprises control means (13) that generates a set of production parameters required by the production control center (5) for processing the order in a format compatible with the production control center (5) from the data received from the ERP system (4) and/or from the data held ready in the CAD system (3), and automatically forwards the same to the production control center.

20. Device according to Claim 7, wherein the order preparation unit (9) comprises a visualization unit (15) for display of the variant product that comprises, in turn, a storage unit (16) in which a parameterized model of the variant product is stored, wherein the visualization unit (15) fills the variables of the parameterized model with data retrieved for the variant product, and displays the variant product based on variables determined in this manner.

#### REMARKS:


The Claims in the application are 1-20.

Favorable reconsideration of the application as amended is respectfully requested.

The Claims have been amended to eliminate all multiple dependencies with Claims 14-20 being introduced (a marked-up copy is enclosed). The specification has also been amended for formal reasons. A sheet of drawings with the English translation thereon is also enclosed.

Early favorable action is earnestly solicited.

Respectfully submitted,

  
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